

# LEF-3L

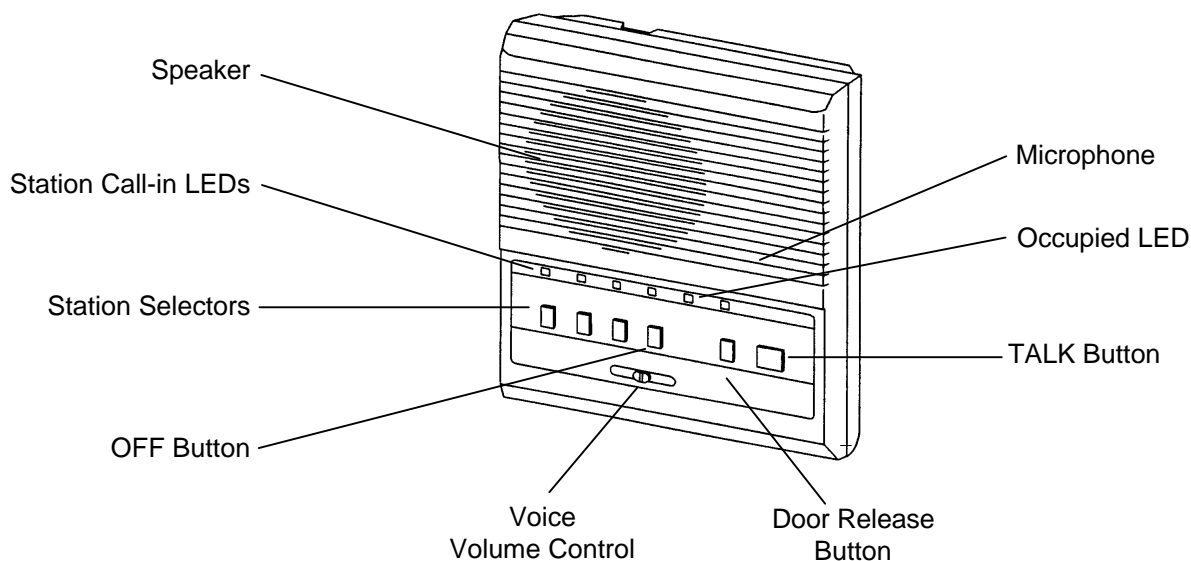
3-Call Master Station with Selective Control Capability (Door Release or Camera Call-up)

Used with LE-D, LE-DA, LE-DL, LS-NVP/B Door Stations

## - SUPPLEMENT TO LEF INSTRUCTIONS -

The LEF-3L is a compact, wall or desk mount master station able to selectively release a door or call up a camera. Used with any LE- or LS-series remote station, communication can be established with each station by selecting the channel on the master station. While the channel is selected, pressing the door release button (left of TALK button) will release only the associated door. When used for camera call-up, a relay closure will be maintained as long as a station is selected. The system can have up to four stations, in any combination of masters or door stations (e.g. 2 masters and 2 doors). Master-to-master communication is also a standard feature. (If communication between masters is not required, multiple LEF-3L's can be used to talk to 3 door stations.

## 1 NAMES & FEATURES



### FEATURES:

- Selective door release control
- CCTV camera call-up capability
- Single or multiple masters can be used in a system
- Master to master communication in a multi-master system
- Single talkpath, with push-to-talk operation at master, and hands free communication at sub station
- Large variety of sub stations available
  - Surface or flush mount, with or without privacy (LE-A, LE-AN, LE-B, LE-BN)
  - Weather resistant door stations (LE-D, LE-DA, LE-DL)
  - Vandal proof sub station (LS-NVP/B, and optional SBX-DGV surface mount box)
- Subs call in with momentary tone and LED, remaining lit for approximately 20 seconds
- Selective calling to sub stations

## 2 COMPONENTS & WIRING

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### **Individual Components for LEF-3L System:**

LEF-3L	3-call master with selective door release
LE-D	Surface mount door station
LE-DA	Flush mount door station with stainless steel faceplate
LE-DL	Surface mount metal door station with illuminated directory
LS-NVP/B	Vandal and weather resistant sub station
SBX-NVP	Surface mount box for LS-NVP/B
SA-1	Surge Arrestor (1 per 2 wires being protected)
RY-PA	Relay, 12V DC input, N/O dry closure output. One required for each contact closure required off of each channel. Can be momentary or maintained, according to wiring.
PS-12C	12V DC power supply, 1 per system

### **LEF-3L TERMINAL DEFINITIONS:**

+	Positive 12V DC
-	Negative
1~3	Station number, communication to sub or other master
C	"CALL", for receiving a call from another master station
E	Common communication
R	Occupied light control (0V DC when system is occupied)
Y	All Call override control (Not used in LEF-3L system)

### **Color-coded Wires:**

White	Common Door release activation (12V DC when door release button is pressed)
Brown	Negative when station 1 is pressed
Red	Negative when station 2 is pressed
Orange	Negative when station 3 is pressed

### **LE-D/LE-DA TERMINAL DEFINITIONS:**

1	Station number
E	Common communication
-	Negative

### **LS-NVP/B TERMINAL DEFINITIONS:**

Red	Station number
Black	Common communication
Green	Negative

### **LE-DL TERMINAL DEFINITIONS:**

1	Station number
E	Common communication
+	Positive
-	Negative

## **WIRING & INSTALLATION:**

### **Before Installation:**

- Make sure you have the proper power supply(ies) and all necessary and compatible equipment for the system.
- Lay out your system in advance, assigning station numbers for all sub station locations.
- Surge protection for the intercom equipment is recommended. Add SA-1 surge arrestors for the power supply, plus one per two wires connected to the master station.

### **Wire:**

- Shielded wire is strongly recommended. Use the proper gauge for the distance being run.
- Wiring between masters must be a multi-conductor cable. If more than one cable is used to connect masters, the "E", "C", and number terminal wires must be in the same jacketed cable. If necessary, run multiple "E" wires, one in each cable.

### **Wiring Method:**

- Run intercom cables at least 20" away from all AC wiring, fluorescent lights, dimmer switches, and other electrical or electronic devices. Intercom wiring can cross AC wires at 90 degrees.
- Sub stations can be homerun to the nearest master station, or daisy-chained. If daisy-chained, include 2 common wires plus 1 individual wire per station on the run.
- In a SINGLE MASTER SYSTEM ONLY: Subs can be wired with 2 conductors homerun. Jumpers between "E" and "-" must be attached on all subs and at the master station.

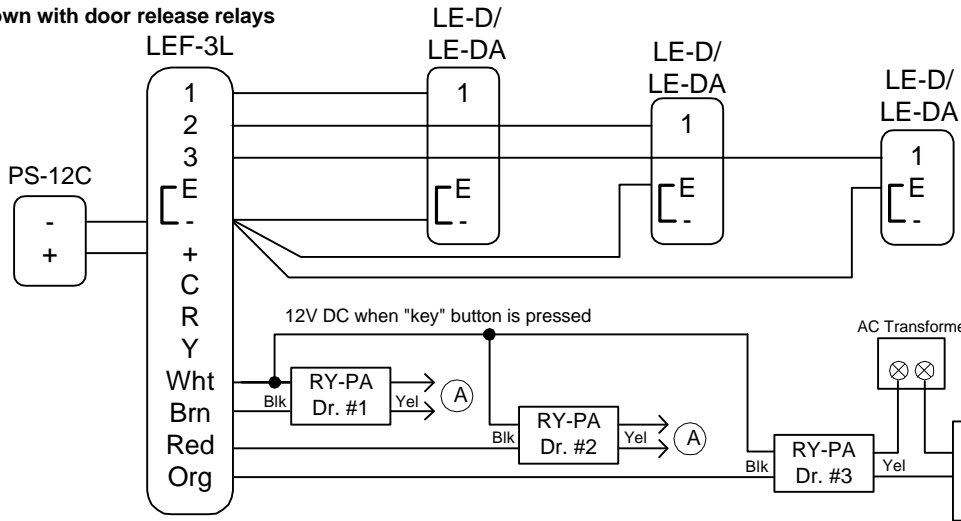
### **Intercom Locations:**

- Do not install intercoms near dimmer or light switches, or other electrical wall devices.
- To prevent feedback, do not place sub stations back-to-back on a common wall.

# 3 WIRING DIAGRAMS

## 1 LEF-3L, 3 Door Stations -

Shown with door release relays



### NOTE:

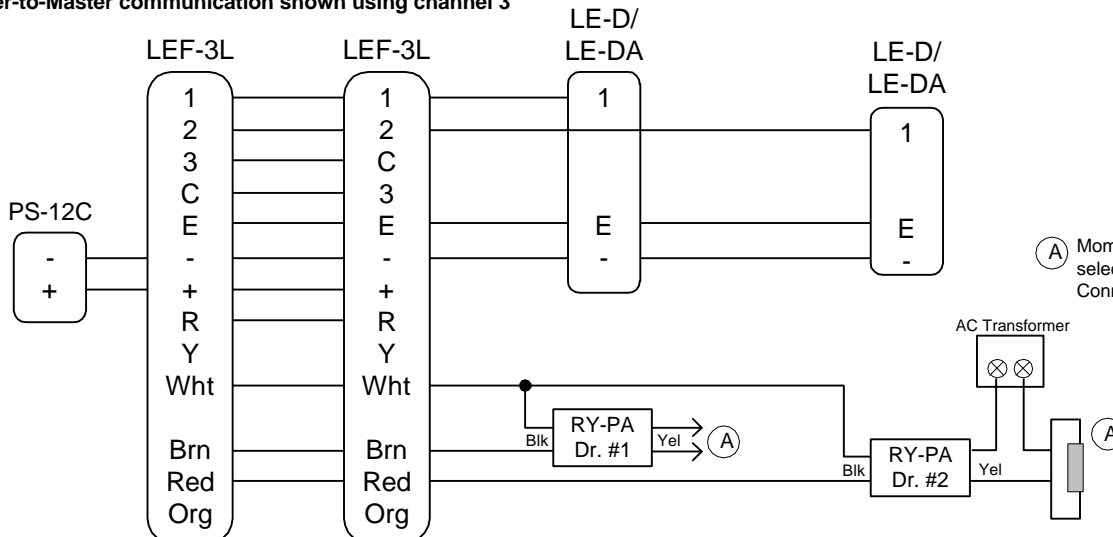
When running 2 conductors homerun to each sub (single master system only), leave jumper attached between E & - on master and door stations. Otherwise, remove jumpers and use separate wires for E and - terminals.

(A) Momentary dry closure when station is selected and "key" button is pressed. Connect to door strike & power.

## 2 LEF-3L, 2 Door Stations

Shown with door release relays

Master-to-Master communication shown using channel 3

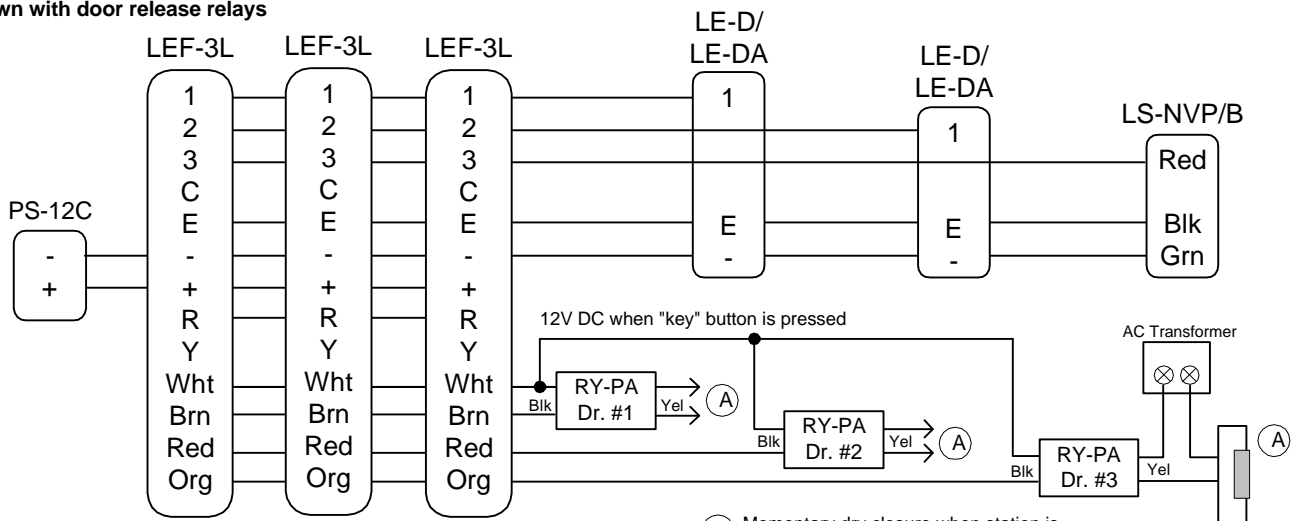


(A) Momentary dry closure when station is selected and "key" button is pressed. Connect to door strike & power.

## 3 LEF-3L, 3 Door Stations

No Master to Master Communication

Shown with door release relays

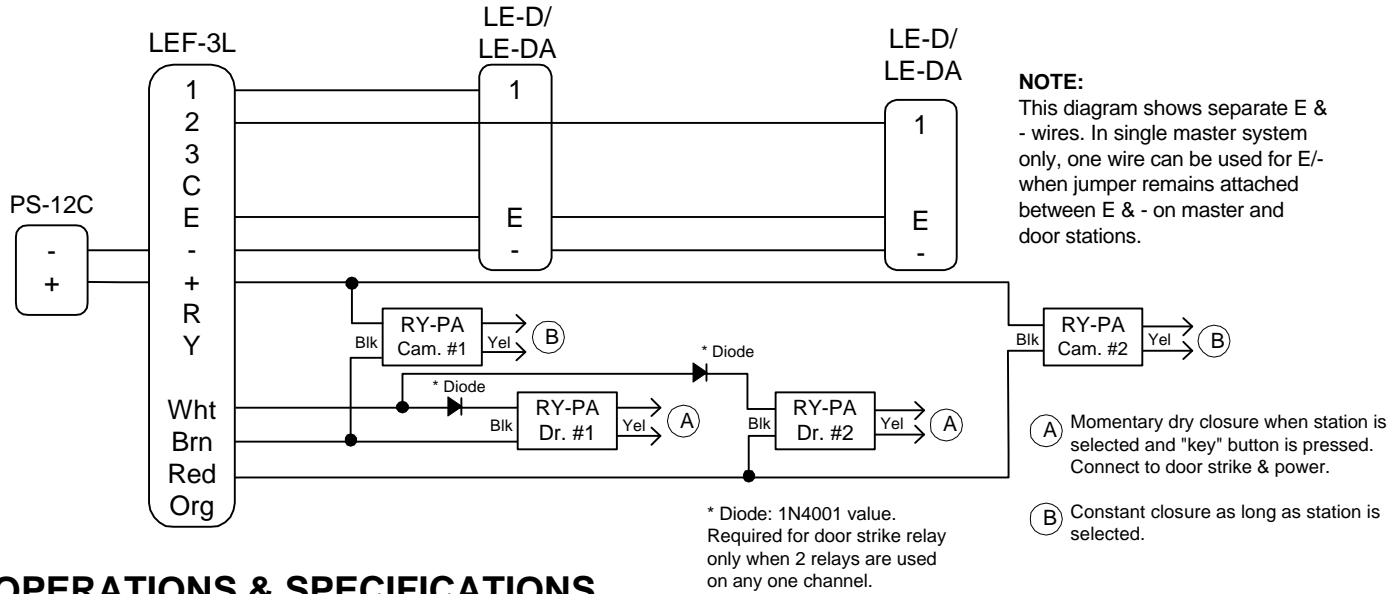


(A) Momentary dry closure when station is selected and "key" button is pressed. Connect to door strike & power.

# 3 WIRING DIAGRAMS (Cont.)

## 1 LEF-3L, 2 Door Stations -

Shown with both Door Release and CCTV Camera Call-up relays



# 4 OPERATIONS & SPECIFICATIONS

## OPERATION:

1. Pressing the call button at the door station will activate a tone, plus light the red channel LED indicator at the master. The tone will be momentary, and the light will remain activated for approximately 20 seconds.
2. The person at the master station answers the call by pressing the selector button with the lit LED. If the LED has already gone out, the call can still be answered by pressing the selector button.
3. Communication at the master station is "press-to-talk, release-to-listen". Communication at the door station is hands free.
4. If the "Camera Call-up" feature is included, the associated relay will provide a maintained closure as long as the station is selected at the master.
5. With communication established to a door station, pressing the door release button (marked with key symbol, left of TALK button) will activate the door release mechanism at the corresponding door. The door release button will be non-functional if a station button is not pressed.
6. When the conversation is completed, the OFF button must be pressed to disengage the call.

## NOTE:

The LEF-3L does not have the "privacy feature", and also cannot send a call tone to the remote stations.

## SPECIFICATIONS:

- Power Source: 12V DC at master. Use PS-12C.
- Communication Output: 800mW @ 20 ohms (receive); 500mW @ 20 ohms (transmit)
- Communication: Push-to-talk, release-to-listen at master station. Hands free at sub station.
- Calling: Master to sub: By voice  
Sub to master: Call tone and LED
- Wiring: 2 common plus 1 individual per sub, looped; or 3 conductors homerun from each sub.  
2 conductors homerun from each sub in a single-master system only.  
Use Aiphone #822202 or #821802 ( 2 cond., 22 or 18AWG), or #822203 (3 cond. 22AWG)  
12 conductors between master stations. Use Aiphone #822212.  
**Shielded cable is strongly recommended.**
- Wiring Distance: 650' with 22AWG; 1,600' with 18AWG.
- Dimensions (HxWxD): 7-1/16" x 5-5/8" x 2-3/16"
- RY-PA Contact Rating: 1A, 110V AC or 24V DC

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LEF-3L Instr.  
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